UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO. : 7,212,999 B2
APPLICATION NO. : 09/289550
DATED : May 1, 2007
INVENTOR(S) : Richard W. Friesen et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

The Title Page, showing the illustrative Figure, should be deleted and substitute therefor the attached title page.

Delete Figs. 2, 3A, 3B, 3D, 3E, 9, 4, 6, 7, 10 and substitute therefor the drawing sheets, consisting of Figs. 2, 3A, 3B, 3D, 3E, 9, 4, 6, 7 and 10 as shown on the attached pages.

Column 6, line 41: please delete "$29.50" and insert --slightly less than $27.35--.

Column 10, line 10: please delete "value/quality" and insert --value/quantity--.

Column 10, line 12: please delete "quality" and insert --quantity--.

Claim 34, column 16, lines 17-18: please delete "of plurality of" and insert --of the plurality of--.

Signed and Sealed this
Nineteenth Day of April, 2011

David J. Kappos

David J. Kappos
Director of the United States Patent and Trademark Office

(12) **United States Patent**
Friesen et al.

(10) **Patent No.: US 7,212,999 B2**
(45) **Date of Patent: May 1, 2007**

(54) **USER INTERFACE FOR AN ELECTRONIC TRADING SYSTEM**

(75) Inventors: **Richard W. Friesen**, Fairfax, CA (US); **Peter C. Hart**, San Rafael, CA (US)

(73) Assignee: **Trading Technologies International, Inc.**, Chicago, IL (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/289,550**

(22) Filed: **Apr. 9, 1999**

(65) **Prior Publication Data**

US 2003/0097325 A1 May 22, 2003

(51) **Int. Cl.**
G06Q 40/00 (2006.01)

(52) **U.S. Cl.** **705/37**; 705/35; 345/440.2

(58) **Field of Classification Search** 705/37
See application file for complete search history.

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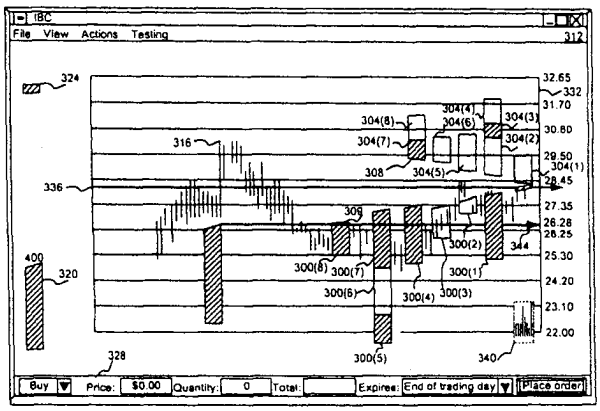
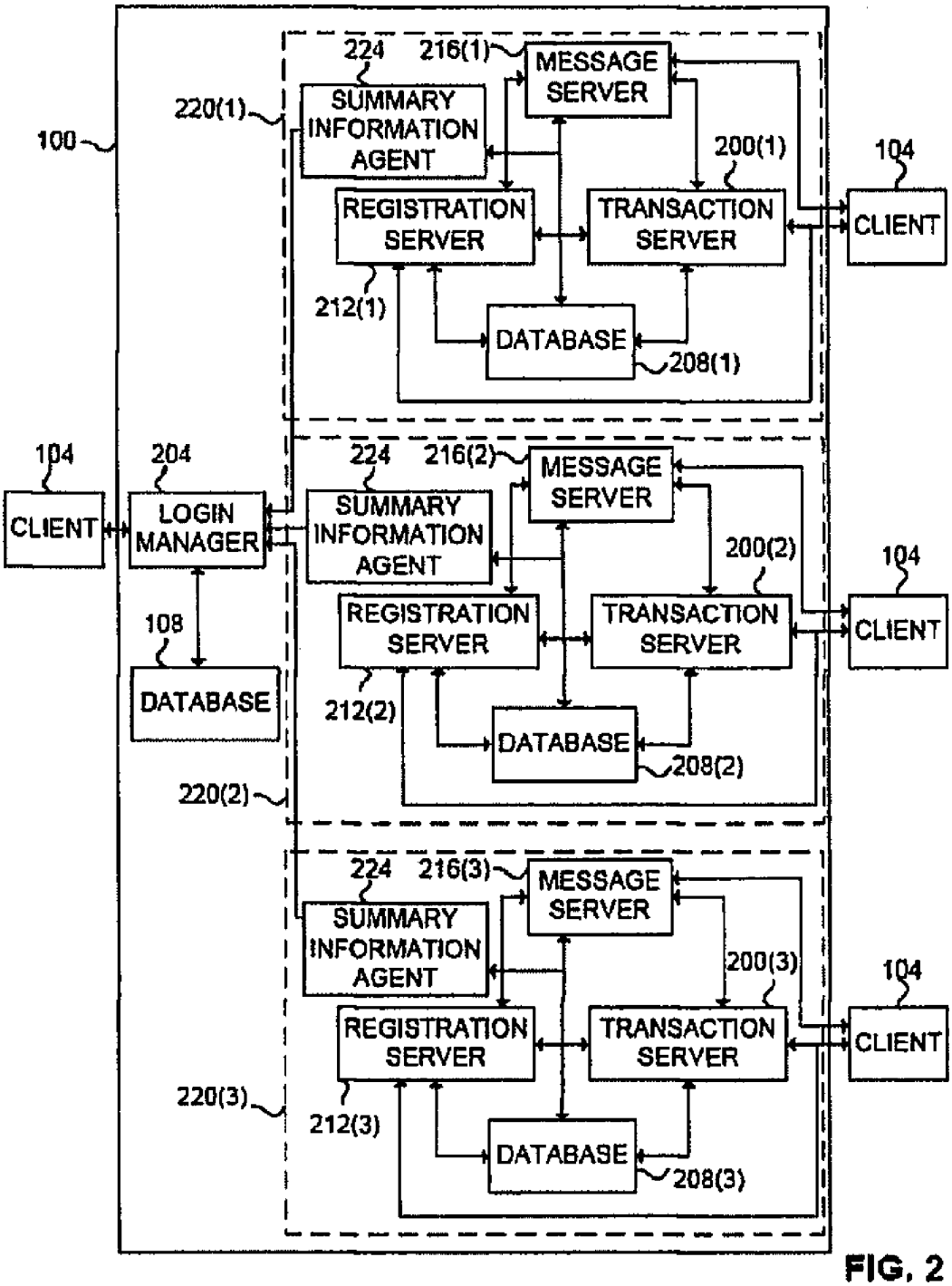
Primary Examiner—Charles R. Kyle
(74) *Attorney, Agent, or Firm*—McDonnell Boehnen Hulbert & Berghoff LLP

(57) **ABSTRACT**

A user interface for an electronic trading exchange is provided which allows a remote trader to view in real time bid orders, offer orders, and trades for an item, and optionally one or more sources of contextual data. Individual traders place orders on remote client terminals, and this information is routed to a transaction server. The transaction server receives order information from the remote terminals, matches a bid for an item to an offer for an item responsive to the bid corresponding with the offer, and communicates outstanding bid and offer information, and additional information (such as trades and contextual data) back to the client terminals. Each client terminal displays all of the outstanding bids and offers for an item, allowing the trader to view trends in orders for an item. A priority view is provided in which orders are displayed as tokens at locations corresponding to the values of the orders. The size of the tokens reflects the quantity of the orders. An alternate view positions order icons at a location which reflects the value and quantity of the order. Additionally, contextual data for the item is also displayed to allow the trader to consider as much information as possible while making transaction decisions. A pit panel view is also provided in which traders connected to the pit are represented by icons, and are displayed corresponding to an activity level of the trader.

35 Claims, 11 Drawing Sheets

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216(1)
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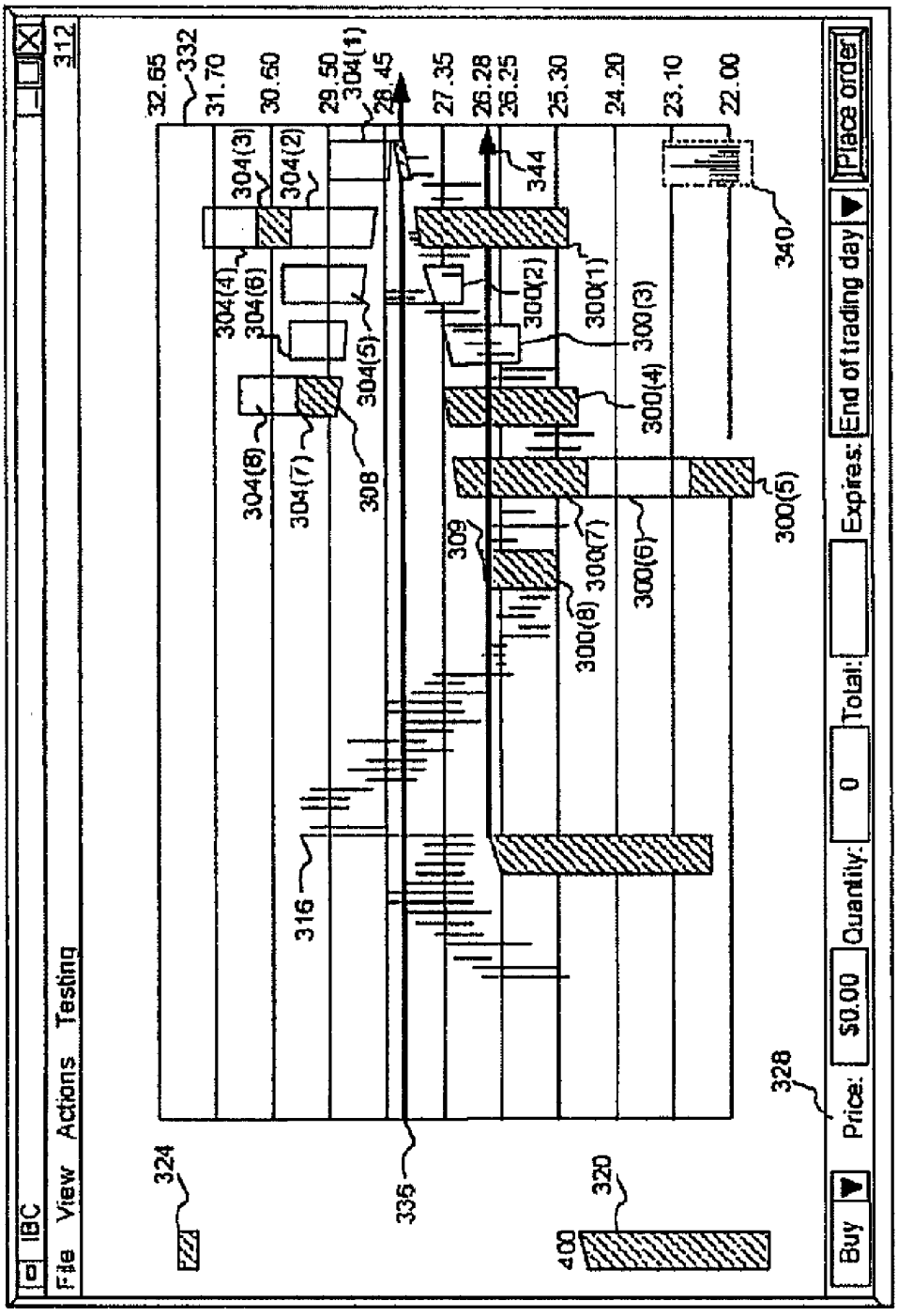
200(1)
104
REGISTRATION SERVER
TRANSACTION SERVER
CLIENT
212(1)
DATABASE
208(1)
104
CLIENT
204
LOGIN MANAGER
224
216(2)
MESSAGE SERVER
SUMMARY INFORMATION AGENT
200(2)
104
108
REGISTRATION SERVER
TRANSACTION SERVER
CLIENT
DATABASE
212(2)
DATABASE
208(2)
220(2)
224
216(3)
MESSAGE SERVER
SUMMARY INFORMATION AGENT
200(3)
104
REGISTRATION SERVER
TRANSACTION SERVER
CLIENT
220(3)
212(3)
DATABASE
208(3)

FIG. 2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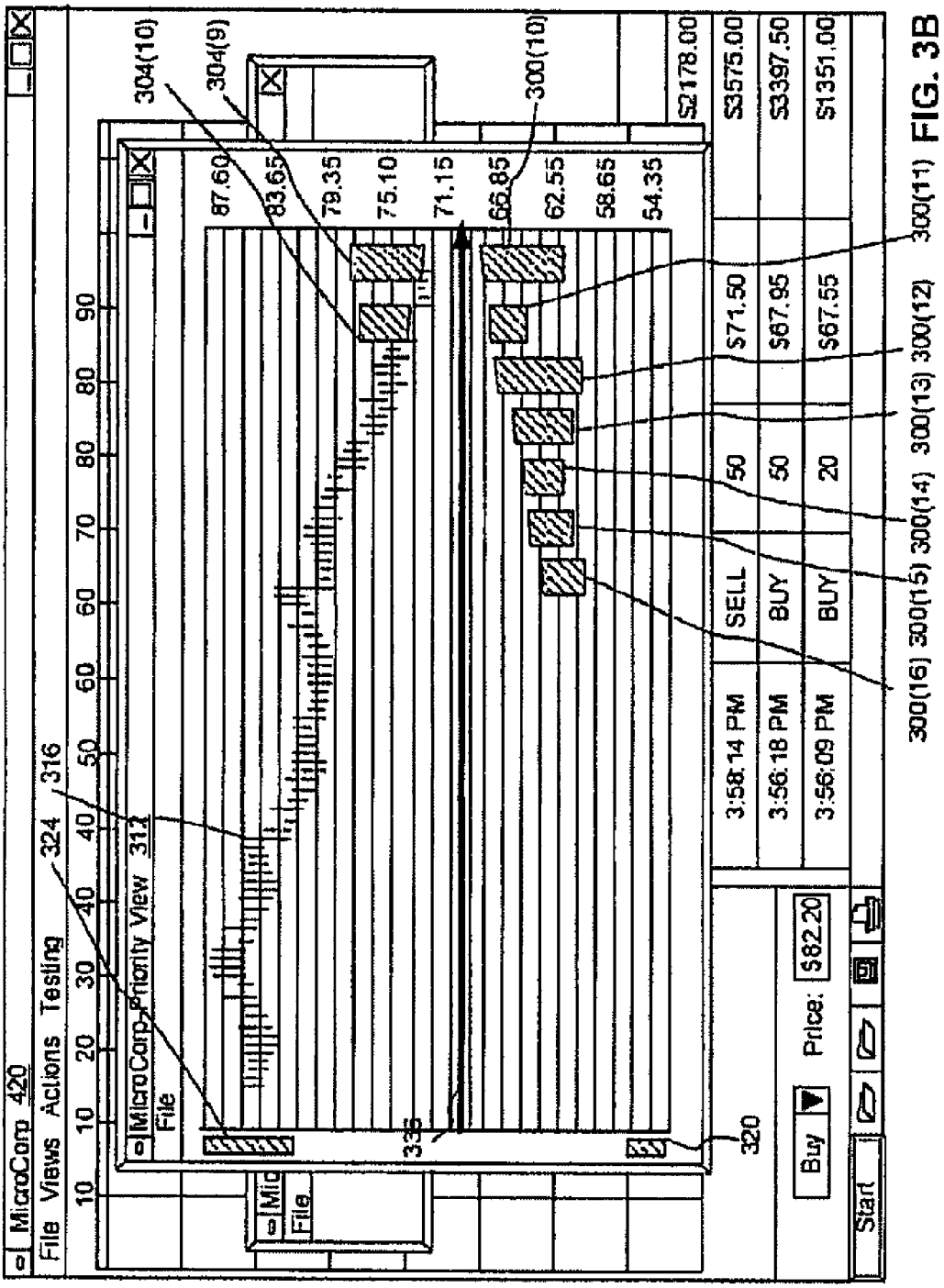
23.10
22.00
304(3)
304(2)
304(4)
304(6)
304(5)
304(8)
304(7)
308
316
309
344
300(1)
300(2)
300(3)
300(4)
300(5)
300(6)
300(7)
300(8)
340
324
336
320
400
328
Buy
Price:
$0.00
Quantity:
0
Total:
Expires:
End of trading day
Place order

FIG. 3A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File Views Actions Testing
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87.60
83.65
79.35
75.10
71.15
66.85
62.55
58.65
54.35
$2178.00
$3575.00
$3397.50
$1351.00
$71.50
$67.95
$67.55
300(11)
300(12)
300(13)
300(14)
300(15)
300(16)
50
50
20
SELL
BUY
BUY
3:58:14 PM
3:56:18 PM
3:56:09 PM
316
324
335
320
Buy
Price: $82.20
Start

FIG. 3B

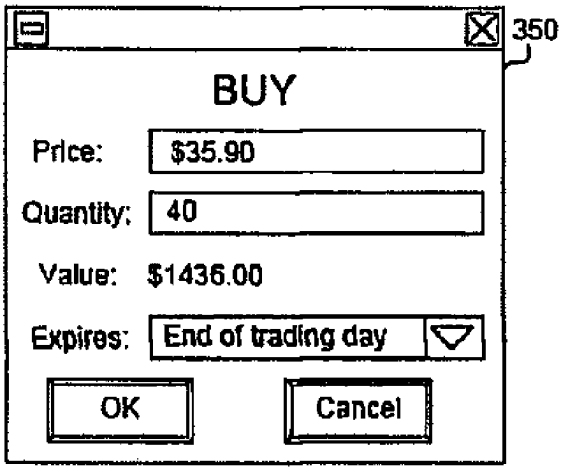

FIG. 3D

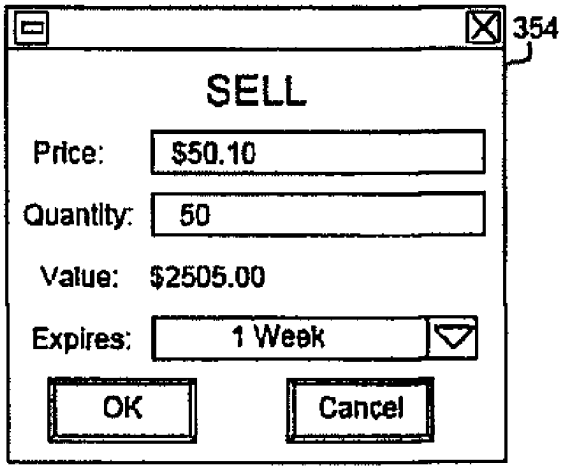

FIG. 3E

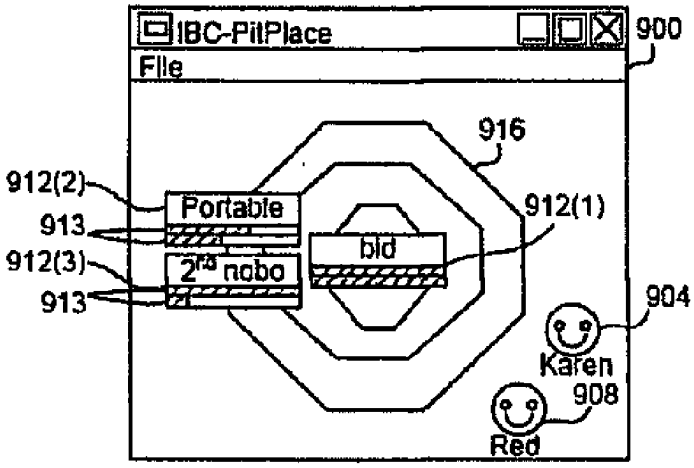

FIG. 9

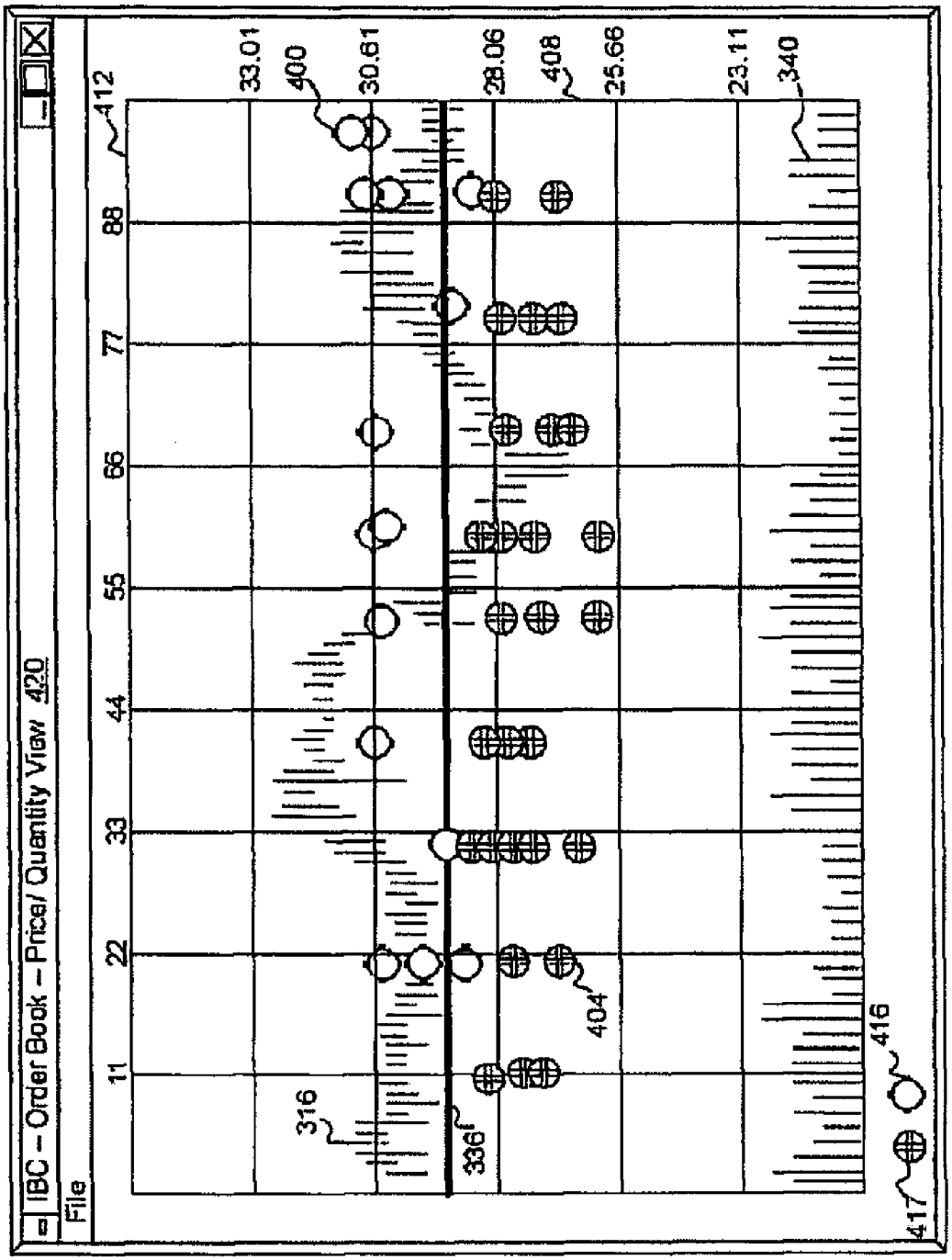
IBC – Order Book – Price/ Quantity View 420
File
33.01
400
30.61
28.06
408
25.66
23.11
340
412
88
77
66
55
44
33
22
11
316
336
404
416
417

FIG. 4

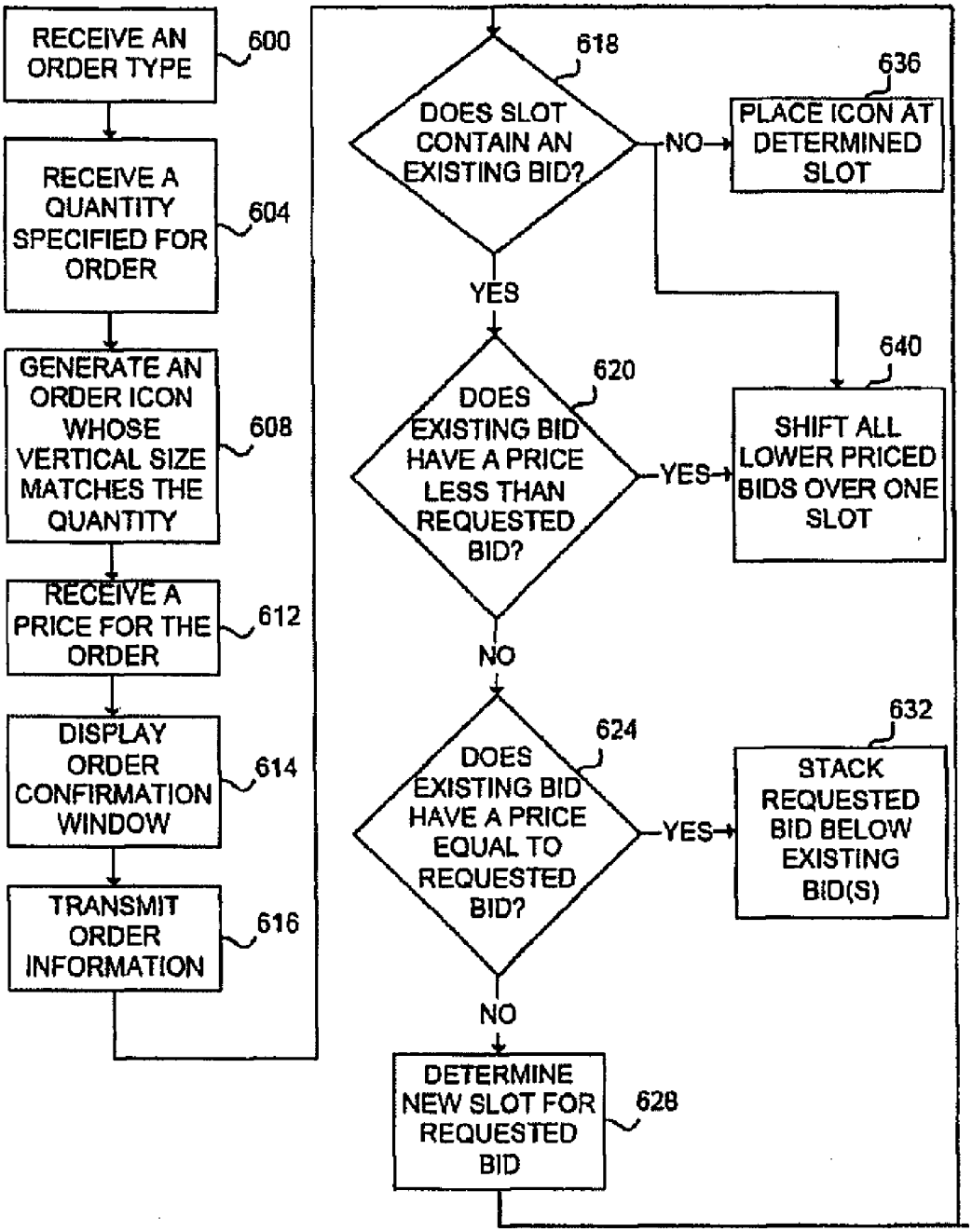
RECEIVE AN ORDER TYPE
600
RECEIVE A QUANTITY SPECIFIED FOR ORDER
604
GENERATE AN ORDER ICON WHOSE VERTICAL SIZE MATCHES THE QUANTITY
608
RECEIVE A PRICE FOR THE ORDER
612
DISPLAY ORDER CONFIRMATION WINDOW
614
TRANSMIT ORDER INFORMATION
616
DOES SLOT CONTAIN AN EXISTING BID?
618
NO
PLACE ICON AT DETERMINED SLOT
636
YES
DOES EXISTING BID HAVE A PRICE LESS THAN REQUESTED BID?
620
YES
SHIFT ALL LOWER PRICED BIDS OVER ONE SLOT
640
NO
DOES EXISTING BID HAVE A PRICE EQUAL TO REQUESTED BID?
624
YES
STACK REQUESTED BID BELOW EXISTING BID(S)
632
NO
DETERMINE NEW SLOT FOR REQUESTED BID
628

FIG. 6

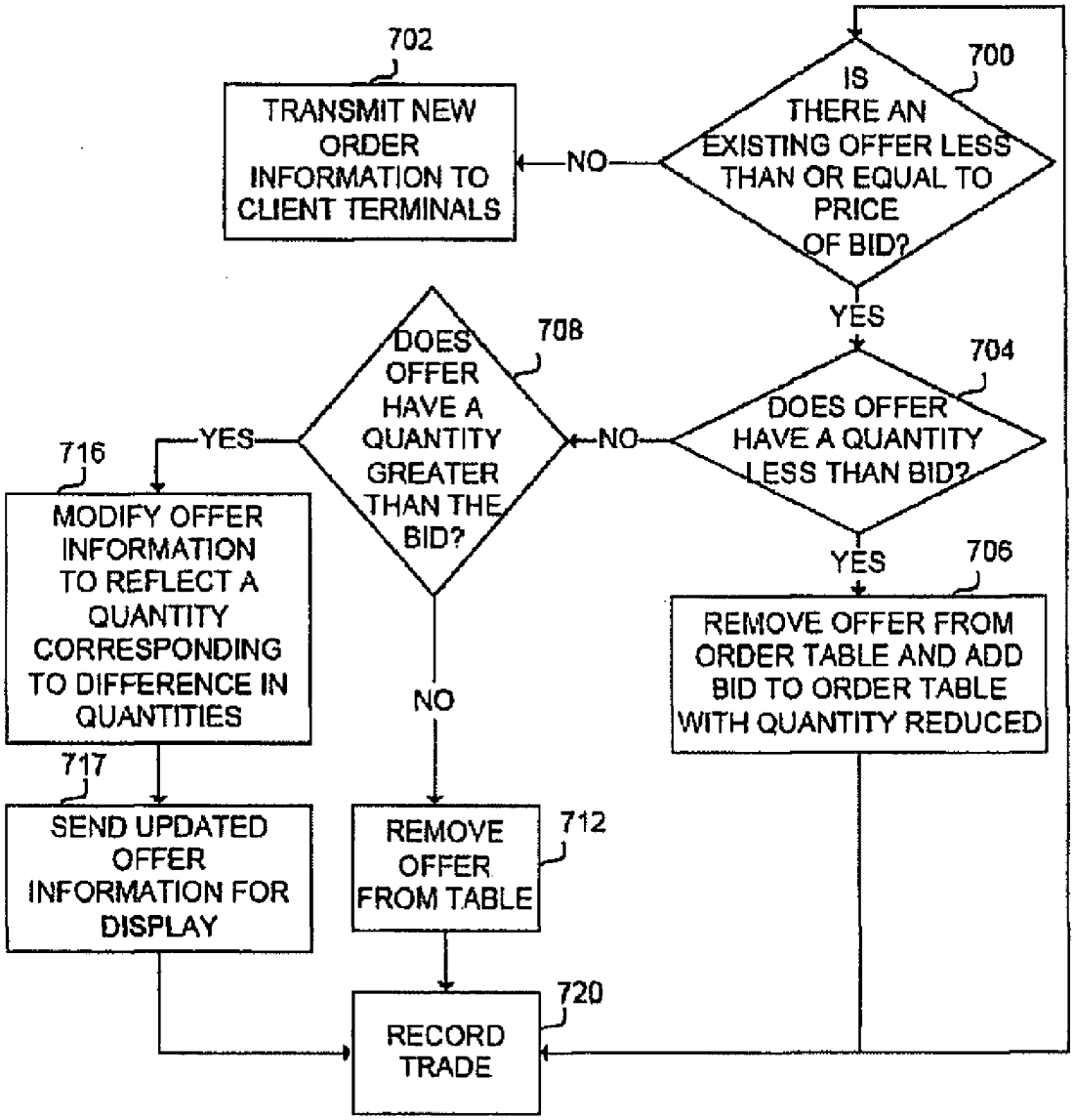
700
IS THERE AN EXISTING OFFER LESS THAN OR EQUAL TO PRICE OF BID?
NO
YES
702
TRANSMIT NEW ORDER INFORMATION TO CLIENT TERMINALS
704
DOES OFFER HAVE A QUANTITY LESS THAN BID?
NO
YES
706
REMOVE OFFER FROM ORDER TABLE AND ADD BID TO ORDER TABLE WITH QUANTITY REDUCED
708
DOES OFFER HAVE A QUANTITY GREATER THAN THE BID?
YES
716
MODIFY OFFER INFORMATION TO REFLECT A QUANTITY CORRESPONDING TO DIFFERENCE IN QUANTITIES
NO
712
REMOVE OFFER FROM TABLE
717
SEND UPDATED OFFER INFORMATION FOR DISPLAY
720
RECORD TRADE

FIG. 7

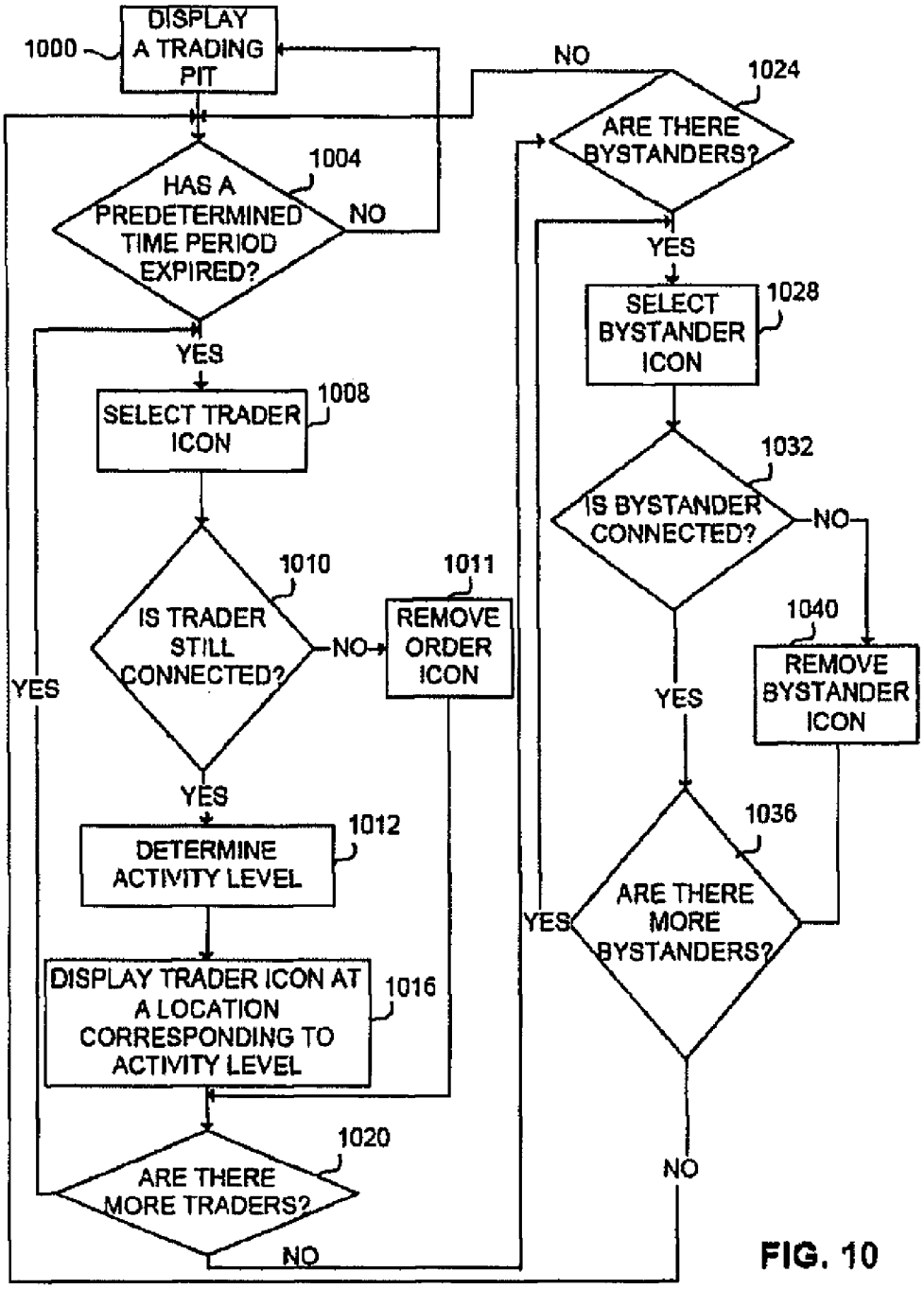
DISPLAY A TRADING PIT
1000
HAS A PREDETERMINED TIME PERIOD EXPIRED?
1004
NO
YES
SELECT TRADER ICON
1008
IS TRADER STILL CONNECTED?
1010
NO
REMOVE ORDER ICON
1011
YES
DETERMINE ACTIVITY LEVEL
1012
DISPLAY TRADER ICON AT A LOCATION CORRESPONDING TO ACTIVITY LEVEL
1016
ARE THERE MORE TRADERS?
1020
NO
YES
ARE THERE BYSTANDERS?
1024
NO
YES
SELECT BYSTANDER ICON
1028
IS BYSTANDER CONNECTED?
1032
NO
REMOVE BYSTANDER ICON
1040
YES
ARE THERE MORE BYSTANDERS?
1036
YES
NO

FIG. 10